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Human gait recognition: Viewing angle effect on normal walking pattern

(Conference Paper)

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Abstract

Gait recognition has recently gained interest of researchers as it performs identification of subjects at a distance from the camera. However, due to the changes in the viewing angles, it gets cumbersome for a system to perform recognition based on the walking pattern of an individual. In this work, the aim is to propose a simple baseline method for the purpose of human recognition based on the shape of its body and walking pattern when the subject is observed from different viewing angles. The recognition is also tested on the subjects in a scenario where the individual subjects are registered while walking in normal walking pattern followed by the testing in normal walking mode, apart from being observed at different viewing angles. Gait periodicity is estimated after extracting the silhouettes of an individual, followed by obtaining the total silhouette representation of an individual using Mat lab. The total silhouette representations obtained from the probe gait data are compared to the gallery gait data representations for the purpose of similarity computation by calculating the RMS value between the said representations. Higher the value, lesser is the similarity & vice versa. © 2014 IEEE.

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Indexed keywords

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